

Application No. : 10/624,080  
Applicant : Ganjum V. Kalpana  
For : INHIBITION OF HIV-1 VIRION PRODUCTION BY A TRANSDOMINANT  
: MUTANT OF INTEGRASE INTERACTOR1 (INI1)/hSNF5  
Filed : July 21, 2003  
Reply to Notice to File Missing Parts of Nonprovisional Application dated October 23, 2003  
Amendment dated December 23, 2003  
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### AMENDMENTS TO THE CLAIMS

1 (original): A peptide comprising an Rpt1 domain of an INI1/hSNF5, the Rpt1 domain having the sequence of SEQ ID NO:2, wherein the peptide inhibits HIV-1 virion production in a human cell.

2. (original): The peptide of claim 1, consisting of a fragment of the INI1/hSNF5.

3 (original): The peptide of claim 1, comprising an amino acid sequence not found in INI1/hSNF5.

4 (original): The peptide of claim 1, comprising a non-peptide moiety.

5 (original): The peptide of claim 1, wherein the peptide does not comprise a non-peptide moiety.

6 (original): The peptide of claim 1, wherein the human cell is a T cell.

7 (original): The peptide of claim 1, comprising SEQ ID NO:3.

8 (original): The peptide of claim 7, consisting of SEQ ID NO:3.

9 (original): The peptide of claim 7, comprising SEQ ID NO:5.

10 (original): A cell comprising the peptide of claim 1.

11 (original): The cell of claim 10, wherein the cell is a human cell.

12 (original): The cell of claim 10, wherein the cell is a hematopoietic stem cell.

13 (original): The cell of claim 10, wherein the cell is a T cell.

14 (original): The cell of claim 10, wherein the cell further comprises HIV-1.

15 (original): The cell of claim 10, wherein the peptide is present in an amount sufficient to inhibit replication or virion production of HIV-1 in the cell, or spread of HIV-1 to another cell.

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16 (original): The cell of claim 10, wherein the cell expresses the peptide.

17 (original): A vector encoding the peptide of claim 5.

18 (canceled)

19 (original): The vector of claim 17, wherein the peptide is expressed in a human cell when the cell is treated with the vector

20-23 (canceled)

24 (currently amended): The vector of claim 19 wherein, when the cell is treated with the vector, the peptide~~truncated INI1/hSNF5~~ is expressed in amounts sufficient to inhibit replication or virion production of HIV-1 in the cell, or spread of HIV-1 to another cell.

25 (original): A cell transfected with the vector of claim 17.

26-30 (canceled)

31 (original): The cell of claim 26, wherein the peptide is expressed in amounts sufficient to inhibit replication or virion production of HIV-1 in the cell, or spread of HIV-1 to another cell.

32 (original): A method of inhibiting replication or virion production of an HIV-1 in a human cell, or spread of the HIV-1 to another cell, the method comprising treating the cell with the peptide of claim 1.

33-40 (canceled)

41 (original): A method of inhibiting replication or virion production of an HIV-1 in a human cell, or spread of the HIV-1 to another cell, the method comprising treating the cell with the vector of claim 24.

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42-48 (canceled)

49 (original): An oligonucleotide comprising at least six nucleotides complementary to a contiguous sequence of a coding region of an INI1/hSNF5 gene, wherein the oligonucleotide inhibits expression of the INI1/hSNF5 gene in a cell.

50-61 (canceled)

62 (original): A method of inhibiting replication or virion production of the HIV-1 in a human cell, or spread of the HIV-1 to another cell, the method comprising inhibiting production of an INI1/hSNF5 by the cell with the oligonucleotide of claim 49.

63-71 (canceled)

72 (original): A method of evaluating whether a test compound inhibits replication or virion production of HIV-1 in a human cell, or cell-to-cell spread of HIV-1, the method comprising determining whether the test compound inhibits the production of INI1/hSNF5 in the cell.

73-80 (canceled)

81. A method of evaluating whether a test compound inhibits replication or virion production of HIV-1 in a human cell, or cell-to-cell spread of HIV-1, the method comprising determining whether the test compound disrupts the interaction of HIV-1 integrase with INI1/hSNF5.

82-90 (canceled)